	Application No.	Applicant(s)	
Notice of Allowability	10/721,355	MA ET AL.	
	Examiner	Art Unit	
	Lawrence B. Williams	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *amendment filed 25 April 2007*.

2. ☒ The allowed claim(s) is/are *1-8*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Cheng-Kang Hsu on 21 May 2007.

The application has been amended as follows:

a.) In claim 1, line 3, delete the word "that" and in line 13, replace the phrase "second

data" with "second".

b.) In claim 3, line 3, delete the word "that" and in line 14, replace the phrase "second

data" with "second".

c.) In claim 5, line 3, delete the word "that" and in line 11, replace the phrase "second

data" with "second".

d.) In specification amendment, page 2, line 16, delete the word "that".

e.) In specification amendment, page 3, line 13, delete the word "that".

REASONS FOR ALLOWANCE

2.   The following is an examiner's statement of reasons for allowance: The instant

application discloses a system and method for channel estimation in a wireless local area

network. A search of prior art records has failed to teach or suggest, alone or in combination:

"a channel estimation method for wireless local area network (WLAN) systems, which

comprises the steps of: (a) receiving a preamble message of a spread spectrum signal with a

sequence and despreading the preamble message into a plurality of symbol signals, each of the

symbol signals containing a plurality of discrete signals; (b) determining a peak sign assignment

for each of the symbol signals; (c) establishing a plurality of data windows for each symbol

signal using the discrete signal of any starting point; (d) multiplying a discrete value associated

with each of the discrete signals of each data window by the peak sign assignment associated

with the data window, and accumulating and temporarily storing the product to a first data frame;

(e) repeating step (d) for each of the following discrete signals, accumulating and temporarily

storing the products to a second through the Nth data frame; (f) computing the accumulated

products in the data frames and determining a data frame with the maximum accumulation; and

(g) computing a channel signal according to the data frame with the maximum accumulation" as

disclosed in claim 1.

"a channel estimation method for wireless local area network (WLAN) systems, which

comprises the steps of: (a) receiving a preamble message of a spread spectrum signal with a

sequence and despreading the preamble message into a plurality of symbol signals, each of the

symbol signals containing a plurality of discrete signals; (b) determining a peak sign assignment

for each of the symbol signals; (c) establishing a plurality of data windows for each symbol

signal using the discrete signal of any starting point; (d) multiplying a discrete value associated with each of the discrete signals of each data window by the peak sign assignment associated with the data window, and accumulating and temporarily storing the product to a first data frame; (e) repeating step (d) for each of the following discrete signals, removing repeated operations in each accumulation, accumulating and temporarily storing the products to a second through Nth data frame; (f) computing the accumulated products in the data frames and determining a data frame with the maximum accumulation ; and (g) computing a channel signal according to the data frame with the maximum accumulation as disclosed in claim 3.

"a channel estimation system for wireless local area network (WLAN) systems, which comprises: a despreader, which receives a preamble message of a spread spectrum signal with a sequence and despreads the preamble message into a plurality of symbol signals, each of the symbol signals containing a plurality of discrete signals; a peak detector, which determines a peak sign assignment for each of the symbol signals; a data window operating unit, which multiplies a discrete value associated with each of the discrete signals of each data window by the peak sign assignment associated with the data window and accumulates and temporarily stores the product to a first data frame; and a data frame operating unit, which sends each of the following discrete signals to the data window operating unit, accumulates and temporarily stores the products to a second data through Nth data frame; wherein the accumulated products in the data frames are computed to determine a data frame with the maximum accumulation according to which a channel signal is computed' as disclosed in claim 5.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

3.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ghayour Mohammad can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw
May 21, 2007

MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER